

**AMENDMENTS TO THE CLAIMS**

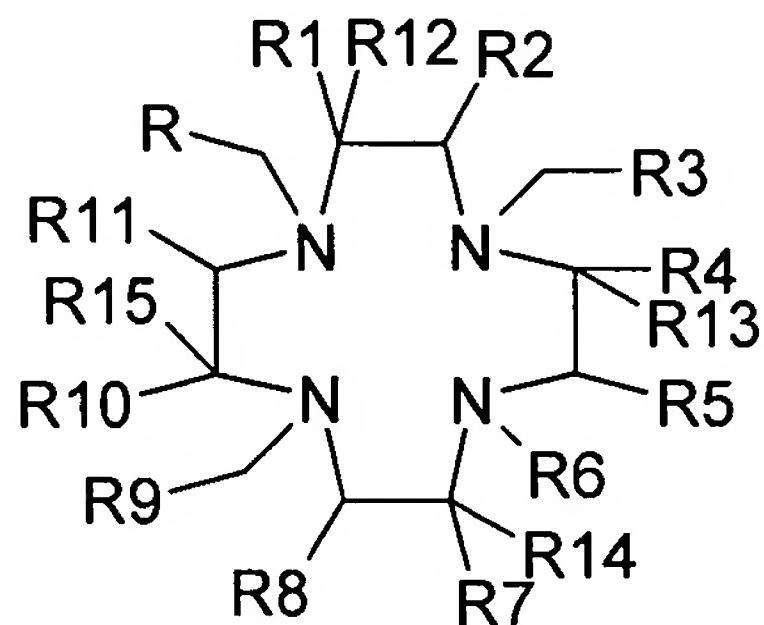
This listing of claims will replace all prior versions, and listing, of claims in the application:

**Listing of Claims:**

Claims 1-23 (cancelled)

24. (New) A compound comprising a polyazamacrocyclic compound and at least one phosphonic group substituted on at least one of the aza groups of said polyazamacrocyclic compound or a salt form thereof.

25. (New) The compound of claim 24 wherein said polyazamacrocyclic compound comprises the general formula (II):



(II)

where  $R^1 = R^2 = R^7 = R^8 = R^{10} = R^{11} = H$ ;

$R^{12}, R^{13}, R^{14}$ , and  $R^{15} = CH_3$  or  $H$ ;

$R^4 = R^5$ ; and  $R^{10} = R^{11}$  can be  $H$  or groups taken together forming a cyclic

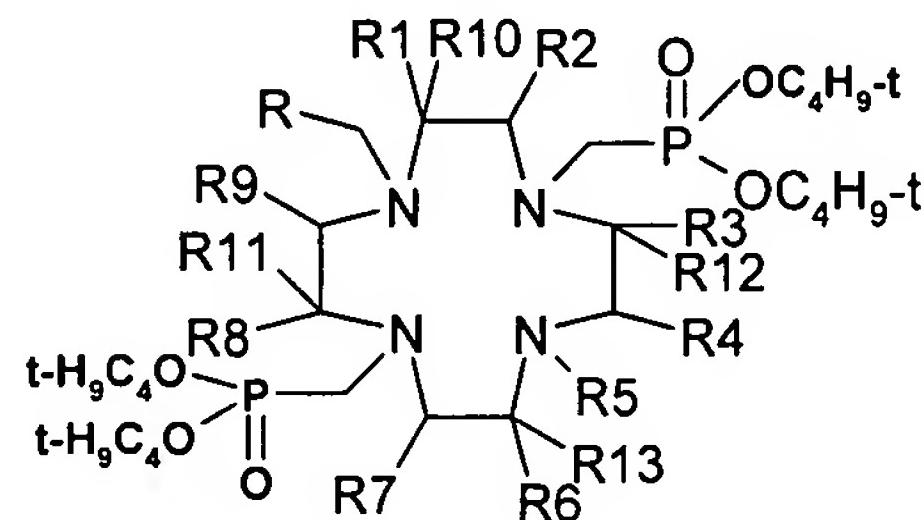
$C_3-C_4$  alkene group;

$R^6 = X$ , where  $X = CH_2P(O)(OH)_2, CH_2P(O)(OC_4H_9-t)_2, CH_3CHP(O)$

$(OH)_2, CHP(O)(OH)_2-(CH_2)_nCO_2H, CHP(O)(OH)_2$ ,

$(CH_2)_nNH_2$ ,  $CH P(O)(OH)_2$ -Aryl-CO<sub>2</sub>H,  $CH P(O)(OH)_2$ -Aryl-NH<sub>2</sub> or  $CHP(O)(OH)_2$ -Aryl-NHCS, where n= 1-12; and R, R<sup>3</sup>, or R<sup>9</sup> is CO<sub>2</sub>C(CH<sub>3</sub>)<sub>3</sub>, or CO<sub>2</sub>H; or a salt form thereof.

26. (New) The compound of claim 24 wherein said polyazamacrocyclic compound comprises the general formula (IV):



(IV)

where  $R^1 = R^2 = R^3 = R^4 = R^6 = R^7 = R^8 = R^9 = H$ ;  
 $R^3 = R^4$  and  $R^8 = R^9$  can be H or groups taken together forming a cyclic C<sub>3</sub>-C<sub>4</sub> alkene group;  
 $R^{10}, R^{11}, R^{12}$  and  $R^{13} = CH_3$  or H;  
 $R = CO_2C(CH_3)_3$ ; and  
 $R^5 = CH_2P(O)(OH)_2, CH_2P(O)(OC_4H_9-t)_2, CH_3CH P(O)(OH)_2, CH P(O)(OH)_2-(CH_2)_nCO_2H, CH P(O)(OH)_2, (CH_2)_nNH_2, CH P(O)(OH)_2$ -Aryl-CO<sub>2</sub>H,  $CH P(O)(OH)_2$ -Aryl-NH<sub>2</sub> or  $CH P(O)(OH)_2$ -Aryl-NHCS, where n = 1-12;  
or a salt form thereof.

27. (New) A compound of the formula:

10-Phosphonomethyl-1,4,7,10-tetraazacyclododecane-1,4,7-triacetic acid

(MPDO3A);

10-(1-phosphonoethyl)-1,4,7,10-tetraazacyclododecane-1,4,7-triacetic

acid;

10-[[Bis(1,1-dimethylethoxy)phosphinyl]methyl]-1,4,7,10-

tetraazacyclododecane-1,4,7-triacetic acid 1,7-bis(1,1-

dimethylethyl)ester;

10-[[Bis(1,1-dimethylethoxy)phosphinyl]methyl]- $\alpha'$ -(carboxymethyl)-

1,4,7,10-tetraazacyclododecane-1,4,7-triacetic acid  $\alpha,\alpha',\alpha''$ -

tris(1,1-dimethylethyl)ester;

10-[[1-[Bis(1,1-dimethylethoxy)phosphinyl]-3-carboxy]propyl]-1,4,7,10-

tetraazacyclododecane-1,4,7-triacetic  $\alpha,\alpha',\alpha''$ -tris(1,1-

dimethylethyl)ester; or

4,10-Bis[[bis(1,1-dimethylethoxy)phosphinyl]methyl]-1,4,7,10-

tetraazacyclododecane-1,7-diacetic (1,1-dimethylethyl)ester;

or a salt form thereof.

28. (New) A compound comprising a homo dimer, hetero dimer, homo multimer or hetero multimer of the compound of any of claims 24-27.

29. (New) A complex comprising the compound of any of claims 24-27 complexed with a paramagnetic or radionuclide metal or a salt form thereof.

30. (New) A method for preparing a complex comprising the step of conjugating the compound of any of claims 24-27 with a paramagnetic or radionuclide metal.

31. (New) A method of imaging comprising the steps of:

administering to a patient a diagnostic imaging agent comprising the compound of any of claims 24-27 complexed with a paramagnetic or radionuclide metal, and imaging said patient.

32. (New) A method for preparing a diagnostic imaging agent comprising the step of adding to an injectable medium a substance comprising the compound of any of claims 24-27.

33. (New) A kit for preparing a diagnostic imaging agent comprising the compound of any of claims 24-27.

34. (New) A kit for preparing a radiotherapeutic agent comprising the compound of any of claims 24-27.

35. (New) A method of treating a patient comprising the step of administering to a patient a radiotherapeutic agent comprising the compound of any of claims 24-27 complexed with a therapeutic radionuclide.

36. (New) A method of preparing a radiotherapeutic agent comprising the step of adding to an injectable therapeutic medium a substance comprising at least one compound of any of claims 24-27.

37. (New) The compound of any of claims 24-27 further comprising a linking group, a targeting moiety, a diagnostic moiety and/or a therapeutic moiety.

38. (New) The complex of claim 29 further comprising a linking group, a targeting moiety, a diagnostic moiety and/or a therapeutic moiety.

39. (New) A method for preparing a polyazamacrocyclic compound bound to a linker, targeting moiety, diagnostic moiety or therapeutic moiety comprising the step of:

conjugating a polyazamacrocyclic compound to a linker, targeting moiety, diagnostic moiety or therapeutic moiety with a coupling agent, wherein:

said coupling agent is selected from the group consisting of DCC, HOBT and HATU,

said polyazamacrocyclic compound comprises one carboxyl group and/or at least one amino group, and

said linker, targeting moiety, diagnostic moiety or therapeutic moiety comprises at least one amino or acid functional group.